



ALAMEDA COUNTY  
CONGESTION MANAGEMENT AGENCY

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**Memorandum**

*July 23, 2009  
Agenda Item 7.3*

**Date:** July 23, 2009  
**To:** CMA Board  
**From:** Plans and Programs Committee  
**Subject:** **East Bay SMART Corridors Program - Operations and Management (O&M) Expenditure Plan**

**Action Requested**

At its meeting on July 7<sup>th</sup>, ACTAC reviewed a projected two-year expenditure plan for the Operations and Management of the SMART Corridors program to sustain the system operation until June 30, 2011. It is recommended that the Board take the following actions:

1. That the CMA Board approve the projected two year expenditure plan as shown in Table 1 with the understanding that CMA staff will continue to work with the partnering agencies to identify specific funding sources for all elements included in the Plan. The fund source specific plan is anticipated to be reviewed by ACTAC and presented to the Board in September.
2. That CMA staff establish a SMART Corridors Technical Advisory Committee (TAC). The TAC will have representation from all agencies participating in the SMART Corridors and will review and make recommendations to ACTAC on SMART Corridors related issues.

These recommendations were approved by the Plans and Programs Committee on July 13<sup>th</sup>.

**Discussion**

The East Bay SMART Corridors program is a cooperative effort by the Alameda County Congestion Management Agency (CMA) and 27 other partner agencies to operate and manage a multi-modal advanced transportation management system along five Corridors. They are: 1) I-80 and I-880 Corridors, 2) the Grand MacArthur Corridor, 3) the I-580 Corridor, 4) the International Blvd/Telegraph Avenue SMART Corridor, and 5) the Tri-Valley SMART Corridor.

The CMA in association with West Contra Costa Technical Advisory Committee (WCCTAC) and AC Transit, have funded the O&M of the SMART Corridors Program for the last eight years. The current funding plan includes funding from the CMA TIP, WCCTAC, AC Transit, Tri-Valley Transportation Council as well as federal CMAQ funds.

The benefits of the SMART Corridors Program is to provide a regional overview of traffic conditions to local and State agencies, as well as the public, through camera images and traffic data. In addition, the SMART Corridors Program maintains Emergency Vehicle Priority (EVP) and Transit Signal Priority (TSP) infrastructure along to I-80 (San Pablo Avenue) and I-880 (International Blvd.) Corridors to provide traffic signal priority to emergency and transit vehicles.

The approximate one million dollar per year O&M cost for the CMA SMART Corridors Program is to maintain an already existing infrastructure that has been developed over the past eight years, and new infrastructure that is coming online this coming year, that represents an approximate capital investment of \$40 million dollars.

Proposed Expenditure and Funding Plan-FY 2009/10 and FY 2010/11

A shortfall in the current (08/09) O&M funding was addressed by the Board at its March 2009 meeting. This action programmed \$250,000 of CMA TIP funds.

The conceptual two-year expenditure plan for fiscal years 09/10 and 10/11 is shown in Table 1.

As the managing entity of the SMART Corridor O&M, the CMA continues to pursue legislation for a long term option for O&M funding, such as the Hancock bill (SB 205) which would provide vehicle registration fee revenues as a possible source of long term funding for O&M. It should be noted that the SMART Corridors O&M may need to be terminated unless a plan for funding the next two years of O&M can be secured within the next two to three months.

Current funding of the O&M Plan relies on the participation of all O&M partners. If additional funds are not realized in this proposed two year plan, CMA may need to revert O&M to local agencies that are the owners of the SMART Corridor's infrastructure, or terminate the project.

**Table 1 - Summary of Anticipated Annual O&M Expenses by Corridor**

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**FY 2009/10**

| Cost Category<br>(Operations or Management)<br>(O/M) |                                      | I-580 Tri-Valley Corridor             |  |                       |  |                                |                    |
|--|--------------------------------------|---------------------------------------|--|-----------------------|--|--------------------------------|--------------------|
|  |                                      | I-80 &<br>I-880<br>SMART<br>Corridors | International-<br>Telegraph<br>SMART<br>Corridor | (c) I-580<br>Corridor | (c)<br>Tri-Valley<br>SMART<br>Corridor | Grand<br>MacArthur<br>Corridor | TOTAL              |
| 1. Communications<br>(O)                             | Wireless                             | \$62,200                              | \$17,400   | \$11,000              | Local<br>Agency                        | \$8,700                        | \$99,300           |
|  | Wireline<br>&<br>Managed<br>Services | 236,800                               | 78,000   | 50,000                | (a) 29,700                             | 39,000                         | 433,500            |
| 2. Field Utilities (O)                               |                                      | 13,800                                | 4,300  | Local<br>Agency       | Local<br>Agency                        | 2,150                          | 20,250             |
| 3. Centralized ATMS<br>Software (M)                  |                                      | 50,000                                | 25,000   | 25,000                | (b) 12,000                             | 12,500                         | 124,500            |
| 4. Agency ATMS System (M)                            |                                      | 46,200                                | 12,000   | 12,000                | Local<br>Agency                        | 6,000                          | 76,200             |
| 5. ATMS Field Equipment (M)                          |                                      | 105,000                               | 96,000   | Local<br>Agency       | Local<br>Agency                        | 48,000                         | 249,000            |
| <b>TOTAL (O&amp;M)</b>                               |                                      | <b>\$514,000</b>                      | <b>\$232,700</b>                                 | <b>\$98,000</b>       | <b>\$41,700</b>                        | <b>\$116,350</b>               | <b>\$1,002,750</b> |

Notes:

- (a) This cost is for Optical-Ethernet-Metropolitan Area Network (OPT-E-MAN) and Cross-Connect Services
- (b) This cost is for the management of the Broadware Server
- (c) Cost sharing opportunities between the I-580 & Tri-Valley Corridors are being explored

## System Components

The East Bay SMART Corridors includes Advanced Transportation Management Systems (ATMS) field components which rely upon centralized software and hardware. The following are the principal components involved in operating and managing the SMART Corridors program:

1. Communication System – Communication lines between the centralized system and field components are leased from AT&T (formerly SBC) for wire-line connections and AT&T (formerly Cingular) for wireless communication. AT&T is responsible for maintenance and troubleshooting of the communications network.
2. Field Utilities – The closed circuit TV (CCTV) and video streaming equipment use dedicated electrical power as the system does not rely on the power from local jurisdiction. Field utilities are provided by PG&E.
3. Centralized ATMS Software and Management Services – The centralized software requires routine maintenance and upgrades. These services are currently being provided by AT&T DataComm.
4. Agency ATMS System – Each participating agency is provided an ATMS workstation that provides real-time information about traffic conditions and statistics along the project corridors. The workstations are housed at each respective agency and are maintained by consultants to ACCMA. They also maintain CCTV video processing components.
5. ATMS Field Equipment – The field elements of the Advanced Transportation Management System of the project are comprised of Closed Circuit TV, non-intrusive vehicle detection system, and emergency preemption and transit signal priority elements. Currently, a consultant to ACCMA is providing these services.
6. Signal Control System – Signal control system, including traffic signal controllers, signal operation, signal appurtenances and video/inductive loop detection system is owned and maintained by each operation agency. ACCMA has no responsibility for this component of the system.